

## THEORY OF PULSE PHENOMENON IN SPIN OF ATOM

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### ABSTRACT

The history of the discovery of the exclusion principal in the field annihilated a pair of positive and positive electrical charge which is claimed by Dirac's relativistic field equation of  $\frac{1}{2}$  spin into the quantized particle. I theoretically annihilated the spin of the atom into the two coherence of spin zero and spin analog with the tool of toss coin into a pulse resonance with its functional genetic existence. Its annihilation of dispersion atom with spin also is discussed in the present topic. In addition to that atomic resonance with forward –backward dynamic quantization in spin give to its finite rank into zero and zero spin analog too. It also discussed theoretically spin- spin interaction and entanglement in quantum mechanics.

**KEYWORDS:** Spin Zero, Spin Analog, Annihilation

### INTRODUCTION

**Physicists**, with contribution Pauli [1] atomic exclusion is into the atomic Oscan. The pair parity with the field annihilated a pair of positive and positive electric charge which is claimed by Dirac's relativistic field equation of  $\frac{1}{2}$  spin into the quantize particles [2]. The conclusion of all relativistic wave equation is (Schrodinger wave [3]) with two value quantities as field component.

The exclusion with respect to non-classical decoherence into the wave cloud in a deterministic position of spin, pulse with annihilation with toss a coin into two face one tail and other head, symmetrically the toss coin of atomic interpretation into the two state of functional annihilation with the originated the conversion spin of an atom into with its symmetry annihilation of its atomic resonance into its orbital vibration[4] in the phase shift motion of its quantum transition of photon transformation into the light wave transformation in the soft coherence with Sugato pulse[5] with a phase of its exclusion and pseudo phase into a phase of atomic moment with its orbit with the entropy release function into the orbital pulse in a sequence of psychologically turbulence of atomic dipolar interaction. Two coherence with spin its resonating sense of exclusion with pulse  $\frac{1}{2}$  annihilated spin with its dynamic moment of a plant. Its exclusion with the gauge dimension of offset interpolate atomic transformation will give a own spinning rotation with its nodal geometric axis and pseudo nodal with a atomic non deterministic distance a spin nodal analog in its geometric optical dispersion state of field coherence either with fermion ionization or quark quantanization into the atomic magnetic field growth.

The exclusion of pulse it's analog with the duel pseudo resonance with the coherence into the orbit, which is dynamical with zeno [6] state of orbit pulse transformation into a non linear function with discrete perturbation of its transfer pulse. The charge  $g>$ ,  $e>$  with its  $|n>$  subsequent pulse analog with its motion periodically as a function debris of transfer function, where the exclusion will give a dynamic chaotic in the phase annihilation which will be a complex ion  $i$ ,

j, field sequence as a result spin zero will be  $\frac{1}{2}$  space field quanta with a toss coin will have a semi-symmetric resonance into the orbit, as a result of spin with zero and spin with analog is begin the two side of toss coin into a phase symmetric, although the  $\frac{1}{2}$  spin Pauli exclusion [1] will be given a distinct dynamic orbit transformation entropy into the ground state function to the spin exclusion, where complex analog function with a same phase value without losses the generality of Lorentz transformation of atomic exclusion. The spin of toss a coin is

$$A_1 = \int (x^i \gamma, x^j \gamma) dx \gamma \quad (1)$$

Where,  $x^i \gamma, x^j \gamma$  is a complex annihilation into the space dimensional distance R which is a inbuilt a sequence of chaotic into high to low enthalpy or vice-versa of annihilation which will be a dynamic moment null to transfer function n with the coherence zero to bosonic, as a sequence of quark quantanization the field fermion will be give duel resonating spin will have the exclusion of  $|(+1/2, -1/2) \leq 1|$  and  $|(-1/2, +1/2) \leq 1|$  with the atomic polar dipolar interaction where the density operator of ion will be a non zero tribal transformation.

### Schrodinger Cloud with Pulse Resonance Acted in Spin

The state of superposition of wave growth into decoherence the dispersion of quantum moment into an analog spin with the dipole-dipole interaction of Rydberg atom [7] will have coherence into spin -qu bit into the dynamic annihilation.

The functional variation the spin analog into the non-classical quantum mechanics with function f with the least critical point in the dispersion of quantum into the trajectories x(t) as the mesoscopic Schrödinger Cat [8] with time

$$\int_0^T (x, \dot{x}) \quad (2)$$

As a functional interpretation L (x<sub>1</sub>, x<sub>2</sub>) where x<sub>1</sub>& x<sub>2</sub> the dispersion ionization into the two generating state with quantum moment into zero spin and quantum spin analog. The boundary  $\| x_1 + x_2 \| \leq |x + \dot{x}|$  into the limit with non-harmonic to harmonic into the Schrödinger Cloud wave growth in the state of decoherence.

The state function of f with its atomic oscillation into the wave growth transformation into the harmonic to non-harmonic, is into the quantized of atomic interpretation into the dynamic annihilation where the resonance of spin into the orbit will have the field duel interpolation of atomic dipole into the phase which act at the space Hilbert with collapsed wave function. The trajectories time t act as a measurable scale of space co-ordinate the position and moment of an atom.

The pole interpretation into the collapsed wave function will have originate a dynamic annihilation where as the atomic dispersion is in a rebounded limit of the atomic dynamic moment. Although the oscillating wave will be give an analogical sense of atomic interpretation into the decoherence state and the pulse act as integral function of discrete perturbation of field annihilation will be suppose to be act as external energy source to be generate a spin has to be stabilized with high energy state with very flexi able genetic existence.

### Annihilation of Depression Atom with Spin

The field exclusion into the space Hilbert with L<sup>2</sup> as a symmetric or Hermitian Kernel [9]

$$A(x, y) = \overline{A(x, y)} \quad (3)$$

Where A(x,y) is a kernel phase into the field geometry of interpolate functional dispersion of quantum trajectories

$x(t)$  is being a phase chaotic into the sequential pulse into the atomic orbit has a non-zero accepting domain into the space into the non-classical decoherence stage with the collapsed wave function has a distinct pole transformation almost everywhere, the transformation almost everywhere, the transformation of phase  $\Psi$  into the discrete annihilation function with Kernel A has the quantified toss coin with its top or bottom surface either tail or head with its spin function with a least function zero spin or its opposite coin spin analog has a at least one characteristic values of finite accelerator of wave function with phase integral of either soft or weak wave growth into Schrodinger cloud[5] wave function as a multiplier. There is an orthogonal sequence (with finite phase or  $\Pi$  rotating phase) of characteristic function  $\Psi_i(x)$  of annihilating of toss coin of A corresponding to the characteristic value  $\Upsilon_i \neq 0$  ( $\Upsilon_i \rightarrow$  pulse sequence) and every function  $\Upsilon(x)$  belonging to the space  $L^2$  admit the developing convergence of field phase sequence in the mean function

$$\Upsilon(x) = \Upsilon_1(x) + \sum_i (\Upsilon, \Psi_i) (\Psi_i(x)) \quad (4)$$

Where  $\Upsilon_1(x)$  is each phase annihilation into the pole interpolation although  $A\Upsilon_1(x) = 0$

$$A\Upsilon(x) = \sum_i \Upsilon_i(\Upsilon_1, \Psi_i) \Psi_i(x) \quad (5)$$

The sequence of pulse into the field annihilation with null choice is a converge function  $S_1(x,y)$  is a sensation pulse belonging to  $L^2$

$$\begin{aligned} (A, \Psi_i) &= \int_0^{\frac{\pi}{2}} \int_{\frac{\pi}{2}}^{\frac{3\pi}{2}} A(x, y), \Psi_i(y), \Psi_i(x) dx dy \\ &= (A\Psi_i, \Psi_i) = \Upsilon_i \end{aligned} \quad (6)$$

It should have a discrete tribal functional annihilation with every toss coin into a finite rank.

### Atomic Resonance with Forward – Backward Dynamic Quantanization in Spin

The present experiment is that use near resonant atomic probes to monitor the evaluation of the quantized field in cavity [10]. It has to be obtain time  $t$  and the normalizing the distribution to unity, it has obtain the time dependent photon number distribution  $P^f(n,t)$ [10]. The forward –backward photon number distribution reads as

$$P^{fb}(n, t) = \frac{P^f(n, t)P^b(n, t)}{\sum_m P^f(m, t)P^b(m, t)} \quad (7)$$

Where the populations  $P^f(n, t)$  are weighted by  $P^b(n, t)$  the probability of the photon number measurement result  $n$  at time  $t$  condition on all atomic meter readout from  $t$  until  $T$ .

With respect to the present experiment based on the state of functional annihilation the transfer the photon in the dense matrix with it a regular dimension of its motion into the non-classical quantum system. It have two node transfer function with field coherence and it has two convergence of the field growth into the space Hilbert, its coherence with it the spin function with the analog pulse into the definite finite real function of spin atom. The toss coin have with it analog having coherence with spin zero and spin analog its real value function (011) where the analog with the unit vector is  $((-1/2, +1/2) > 1)$  and the other side of tossed coin  $((+1/2, +1/2) > 1)$  the space with it's a finite rank into the zero spin and spin analog too.

### Spin-Spin Interaction and Entanglement in Quantum Mechanics

The present research the spin-spin interaction [11,12,13] just as for two qu-bit quantum logic gates with ions in

the same harmonic well, but as opposed to the latter case, the strength of the spin –spin interaction can be turned from strong to weak by control of individual trapping wells[14,15,16].

Symmetry of the above interaction into the quantum dynamic the phase annihilation into the two duel spin of the toss coin with its Eigen state of the pseudo spin  $1/2$  system  $\{|\uparrow, \downarrow\rangle\}$  the symmetry of ion into a dipole interaction with the phase value of its root mean squared of its polar interpolation where the field oscillation with a phase transition into the Raman transition with its soft phase of entanglement of its analog pulse with its dramatically two phase of the frequency transition with the supermative space vibration.

The transition of its excitation with dense mode pulse translation into the two ordinary phase  $\{|\uparrow\rangle, |\downarrow\rangle\}$  the entanglement of its spin with the field fermion into the anti fermion dipolar interaction where as the null become collapsed wave function and it has change into the phase of zero rotation orbit to the infinity growth.

The state function into the annihilating to a  $\rho_{i,j}$  complex analog with dramatically a pseudo sense of coupling of orbit into compound ion with its regular real value sequential pulse into a sensation growth.

## CONCLUSIONS

Theoretically invention of annihilated of spin resonance with pulse innovation with its spin into spin zero and spin analog .It has been work on resonance of forward backward dynamic quantanization in spin with its finite rank. Also determine spin- spin interaction and entanglement in quantum.

## REFERENCES

1. Wolfgang pauli Nobel Lecture 1946
2. P. A. M. Dirac, Proc Roy Soc London A **117** (1928) 610
3. E. Schrodinger “ an undulatory theory of mechanics of atoms and molecule “14, 664 (1926)
4. S. Ghosh Theory on pulse phenomenon in decoherence stage of atom and its chemical affinity IJPR vol-4,Issue-1, Feb 2014, 45-58
5. S. Ghosh Theory of Schrödinger Cloud Equation IJPR Vol-3, Issue-4 Oct 2013,43-54
6. I. Detsenko, J. Bernu, S. Delegish, C. Sayrin, M. Brune, J. M. Raimond, S. Haroche, Phy Scr T140 (2010)
7. S. Ghosh Sugato Pulse acted on Rydberg atom IJPR Vol-5, Feb-2015,17-24
8. C. Monroe, D. M. Meekhof, B. E. King, D. J. Wineland A Schrodinger Cat Supperpositin state of atom Science Vol-272,24 May 1996
9. Hilbert, D –[\*] Grundzuge einer allgemeinen theorie der linearen Integralgleichungen (Leipzig 1912)
10. T. Rybarczyk, J. M. Raimond, S. Haroche Forward backward analysis of the photon number evolution in a cavity XIJ10106
11. Blatt, R & Roos. C. F. Quantum simulation with trapped ions Nature Physics **8**, 277.284(2012)
12. Kim, K et al Quantum simulation of frustate spins with trapped ions Nature Physics 465,590-593(2010)

13. Britton J. W. et al Engineered two dimensional ising interaction in trapped ion-quantum simulator with hundreds of spin Nature 484,489-492 (2012)
14. Schmied, R Wesenberg. J. H. Leibfried, D. Quantum simulation of the hexagonal kitaev model with trapped ions New.J.Phy 13,115011(2011)
15. Brown, SK. R et al Coupled quantized mechanical oscillators Nature 471,196-199(2011)
16. Harlander, M, Lechner. R, Brownnutt. M, Blatt, R Hensel, W Trapped ion antennac for the transmission of quantum information Nature 471,200-203(2011)

